



EPA Region 5 Records Ctr.



314037

July 15, 2008

Mr. Sam Chummar
Remedial Project Manager
U.S. Environmental Protection Agency - Region 5
77 W. Jackson Blvd. SR-6
Chicago, IL 60604

Subject: Phase 2 Work Plan for the Plainwell Mill RI/FS Addendum No. 1

Dear Sam:

On behalf of Weyerhaeuser Company (Weyerhaeuser), RMT, Inc. (RMT), is submitting this focused Work Plan for Phase 2 of the Mill Banks investigation activities. This draft Work Plan is the second part of an addendum to the September 2006 draft Remedial Investigation/Feasibility Study (RI/FS) Work Plan for the Plainwell Mill site, located at 200 Allegan Street, in Plainwell, Michigan. The addendum is being completed in a phased manner to specifically address the United States Environmental Protection Agency's (USEPA) concerns regarding the oil impacted soil and elevated PCB concentrations cited in your February 18, 2008, letter.

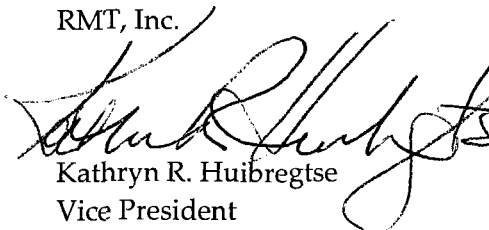
The first phase of the requested Mill Bank investigation activities was described in a Work Plan for Mill Banks RI/FS Addendum #1, entitled PCB Investigation Activities Near Mill Building Banks. The initial Work Plan for Phase 1: Definition of Site Conditions, was submitted to USEPA on March 4, 2008, and approved in a letter dated April 8, 2008. The approved scope included review of supplemental historical information for the site, a geophysical survey, and preparation of this Phase 2 Work Plan that summarizes the Phase 1 results and describes the investigation activities.

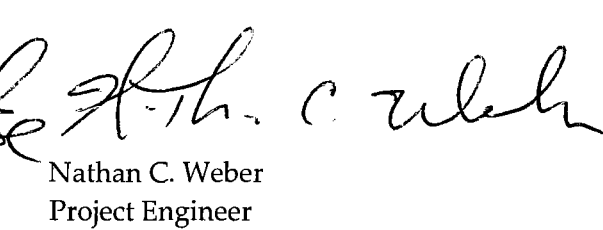
We appreciate your timely review of this draft report.

Thank you in advance for your assistance.

Sincerely,

RMT, Inc.

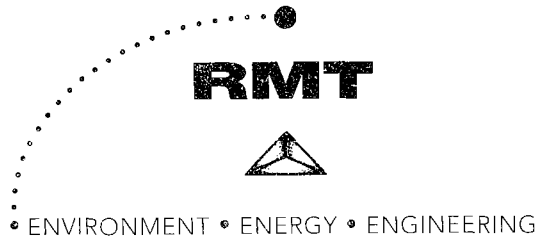

Kathryn R. Huibregtse
Vice President


Nathan C. Weber
Project Engineer

cc: Paul Bucholtz, Michigan Department of Environmental Quality
Jennifer Hale, Weyerhaeuser
John Gross, Weyerhaeuser
Martin Lebo, Weyerhaeuser
Jim Hutchens, RMT, Inc.

I:\WPMLW\PJT\00-05133\01\LETTER TO USEPA.DOC

150 North Patrick Blvd., Suite 180 • Brookfield, WI 53045 • 262.879.1212 • 262.879.1220 FAX • www.rmtinc.com



DRAFT

Addendum to RI/FS Workplan

PCB Investigation Activities Near Mill Building Banks

*Weyerhaeuser Company
Plainwell, Michigan*

March 2008

RMT, Inc. | Weyerhaeuser Company
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Section 1

Introduction

On behalf of Weyerhaeuser Company (Weyerhaeuser), RMT, Inc. (RMT), is submitting this Work Plan Addendum to the September 2006 draft Remedial Investigation/Feasibility Study (RI/FS) Work Plan for the Plainwell, Inc. Mill (the Plainwell Mill) site, located at 200 Allegan Street, in Plainwell, Michigan. This Addendum #1, entitled PCB Investigation Activities Near Mill Building Banks, is being submitted in response to discovery of elevated concentrations of polychlorinated biphenyls (PCBs) and oily soil encountered along the Plainwell Mill banks during the separate Plainwell Mill Banks Emergency Response activities. These discoveries were coupled with Weyerhaeuser's request for permission to cover a short length of river bank (approximately 50 feet) where elevated PCBs concentrations were identified to limit potential release of material from this area. The discoveries and site observations were discussed in detail with the United States Environmental Protection Agency (USEPA) remedial project manager (RPM) and the Michigan Department of Environmental Quality (MDEQ) project coordinator on a conference call requested by Weyerhaeuser on February 7, 2008, and conducted on February 13, 2008. In a letter dated February 18, 2008, the USEPA RPM approved the interim cover and requested a work plan to better evaluate the sources of the oily soils and elevated PCBs.

Since the investigation activities requested by the USEPA are expected to extend beyond the top of the river bank along the Mill property, the area being investigated is considered part of the Plainwell Mill site. The Plainwell Mill site is an approximately 34-acre property, which is designated as Operable Unit No. 7 of the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund site. On February 22, 2005, Weyerhaeuser entered into a Consent Decree with the USEPA for the Design and Implementation of Certain Response Actions at Operable Unit No. 4 (the 12th Street Landfill site) and the Plainwell Mill site. A Statement of Work (SOW) for the RI/FS at the Plainwell Mill site was subsequently issued by the USEPA, with an effective date of August 17, 2006. This SOW required submittal of the RI/FS Work Plan. The draft RI/FS Work Plan for the Plainwell Mill property was submitted for agency review in September 2006. Although comments on the draft RI/FS Work Plan are imminent, Weyerhaeuser has provided the requested Work Plan as an addendum to the Plainwell Mill RI/FS Work Plan responding to the specific issues identified in the February 18, 2008, letter.

Section 2

Background

2.1 Discovery of Material During Emergency Action

The discovery of elevated PCBs and oily soil/fill materials was made during excavation of paper residuals that had been observed along the Plainwell Mill banks. The paper residuals are suspected of containing PCBs that were deposited along the fringe of the river banks during periods of low flow in the Kalamazoo River and during the time that the Plainwell Impoundment created lower velocities in the river. The potential to release PCBs from deposits along the river banks from Plainwell to the Former Plainwell Impoundment provided the justification for the Plainwell Impoundment Time Critical Removal Action (TCRA) being conducted by the Kalamazoo River Study Group (KRSRG).

The Plainwell Impoundment TCRA did not address deposits along the river banks adjacent to the Plainwell Mill, so the City of Plainwell (City) requested that Weyerhaeuser Company address those issues in a manner that was consistent with the City's potential future plans for the site. In September 2007, after discussions with the USEPA and MDEQ, Weyerhaeuser submitted the Plainwell Mill Banks Emergency Action Design Report that was modified and approved by the USEPA in October 2007. The design report describes Weyerhaeuser's approach to the Mill Banks Emergency response activities that is modeled after the Plainwell Impoundment TCRA with modifications to limit the amount of bank excavation along the Mill property to preserve the City's options for redevelopment. Due to the imminent winter season, the 2,600 feet of river bank adjacent to the Mill property was divided into four zones (see Figure 1). The Mill Banks Emergency Action begun in November 2007 focused on removal of material with the largest mass of observed paper residuals, designated as Zone A. Work has continued into 2008 with removal completed in Zones A and B. As of January 15, 2008, with the completion of removal in Zone B, approximately 2,500 cubic yards of material had been removed from the banks and staged within a containment pad on site. In all excavation areas, confirmation samples are collected and compared to several criteria including a numerical target for soft sediments of 1 mg/kg total PCBs or removal of all deposits to the non-erosional river bottom.

After shutdown for inclement weather on January 16, 2008, the crew remobilized to the site on January 27, 2008. Because of high flow velocity in the river along Zone C, the excavation crew focused on removal in Zone D and installed 300 feet of silt curtain on January 28, 2008. Removal of residuals within the shoreline protected by a silt curtain was conducted on January 29 and 30, 2008. Residuals were removed to the rocky bottom and then five confirmation samples were collected along the shoreline on January 31, 2008.

On February 4, 2008, a verbal report from the laboratory stated that the results were above the targeted concentration of 1 mg/kg total PCBs and final data would be available on February 5, 2008. In response, on February 5, 2008, the excavator was activated to remove additional bank material on the east end of Area D, near the former Consumers Energy transformer pad (see Figure 1). During the initial backhoe swath, some oily soil and debris was uncovered resulting in a slight sheen spreading into the water inside the silt curtain. All excavation was halted and sorbant booms deployed along the excavation and in the water to contain the sheen. Concurrently, the confirmation sample results were received that confirmed concentrations of total PCBs above 1 mg/kg in four of five samples (see Figure 1). Of specific concern was the confirmation sample collected at PM-SD-041 that was quantified with 513 ppm total PCBs. Also on February 5, 2008, in response to both issues, 2 to 3 feet of clayey soil was placed over the 300 feet of excavated banks and erosion protecting rock placed over the clay. These measures eliminated potential contact of the oily material with various media, fully securing the area. Immediate notification was then provided to the City, as the property owner, and then to the USEPA and MDEQ, as soon as representatives from the USEPA and MDEQ were available. In addition, approximately 20 yards of residuals removed from the area around sample PM-SD-041 were segregated into a lined and covered dumpster for future characterization and disposal.

2.2 Documented Use of Petroleum and PCBs on Site

The materials observed during the emergency action excavation near the transformer pad appeared oily and exhibited a diesel odor, while the appearance of the sample with elevated PCB concentrations was typical sandy gravel river bottom with no apparent distinguishing characteristics. Thus, the initial focus of the Work Plan Addendum #1 is to assess this area for petroleum products and PCBs. It is important to understand possible sources and pathways that could explain the presence of petroleum and PCB containing soil or fill along the bank. Therefore, having as comprehensive understanding as possible of the historic use of these materials between the Mill buildings and the river will be critical in both design of the investigation plan and interpretation of the results.

Both petroleum products and PCB containing materials are documented to have been present on the Plainwell Mill property in the Plainwell Mill RI/FS Work Plan. Petroleum products were used at the Plainwell Mill as fuels and lubricants when the facility was operating. There have been reported releases of several of these products including No. 6 fuel oil and kerosene. In contrast, there was no reported release from the 300-gallon gasoline underground storage tank located in along the Kalamazoo River near Area D. PCBs have been documented along the Plainwell Mill banks during several independent investigations. In general, PCBs were present on site as an inadvertent contaminant in the recycled paper wastes, in electrical equipment present on site in the transformer station, and in various electrical equipment or lubricants used in the Mill buildings.

A preliminary identification of reports and other information sources that could impact the scope of work needed for the PCB Investigation Activities Near Mill Building Banks include the following:

- Removal Assessment Report for Allied Paper-Kalamazoo River Site Otsego/Plainwell Michigan. Roy F. Weston, Inc. for USEPA, February 2002
- Plainwell Paper Gray Seam Investigation. CDM for MDEQ, November 2001.
- PCB Data for the Plainwell Impoundment River Bank Samples. Blasland, Bouck & Lee, Inc., for the KRSG, October 2003.
- Letter report describing removal of sediment from a storm sewer manhole and a former wastewater discharge pipe at the Simpson Plainwell Mill. Blasland, Bouck & Lee, Inc., submitted to MDEQ, December 3, 1996.
- Simpson Plainwell Mill Storm Sewer Outfall Cleanout. Blasland, Bouck & Lee, Inc., submitted to MDEQ, July 16, 1998.
- Simpson Plainwell Paper Company Phase I Environmental Site Assessment and Phase II Investigation, Plainwell, Michigan. Environmental Resources Management, June 6, 1997.
- Phase I Environmental Site Assessment, Plainwell Paper Mill, Plainwell, Michigan. FTC&H, May 2003.
- Phase II Environmental Site Assessment, Plainwell Paper Mill, Plainwell, Michigan. FTC&H, October 2006.

An initial review of some of these sources was included in the Plainwell Mill RI/FS Work Plan. However, to better focus the investigation plan that is needed to respond to the February 18, 2008, letter, these sources and additional reports and data sources will need to be re-assessed for the specific issues being evaluated in this work plan addendum (*i.e.*, specific information available in these reports and from other sources will need to be considered for the possibility of PCB or petroleum use in the vicinity of the banks). Sources to review include historic aerial photographs, Sanborn maps, as built sewer system maps, outfall descriptions and usage, Mill building usage maps, soil boring logs, and even historical descriptions of the Plainwell Mill Race. As stated previously, the information obtained from these sources will provide focus to the investigation activities and insight for data interpretation.

2.3 Site Conditions that Impact Investigations Between the Mill Buildings and River

There are several site conditions that need to be considered as the investigation scope and sampling methods are refined. These include the following:

- the unknown extent of large sized rip rap from along the banks back toward the Mill buildings (see historic site photograph included as Figure 2);
- the location, condition, and connection of historic and current outfalls extending from the Mill to the river; and
- the types of fill material present in the historic Mill Race discharge channels (see Figure 3) that were located under the current Mill buildings.

These site conditions will impact both the location of samples and the methodology of sample collection. Given the uncertainty of what types of contamination may be discovered during the investigation, it will be important to carefully plan the sampling procedures and associated contingency plans to avoid potential releases near the river. A less intrusive sampling method, such as GeoProbing is preferable to reduce potential risks. However, sample collection may need to utilize a backhoe if the riprap along the bank by the Mill buildings is as extensive as suggested in Figure 2, which presents a historic photograph showing the riprap, and as illustrated in Figure 4, which shows the size of the riprap in the recent excavation near the transformer pad. Therefore, a better understanding of the subsurface conditions prior to subsurface sampling is desirable.

Section 3

Overall Approach to the Work Plan Addendum

3.1 Objectives

The overall objectives for this Addendum #1, PCB Investigation Activities Near Mill Building Banks, have been developed based upon the February 18, 2008, USEPA letter and then supplemented to integrate the results into the RI activities being proposed in the draft Plainwell Mill RI/FS Work Plan.

For ease of review, the objectives of the Plainwell Mill RI/FS work plan as defined in the SOW, are reproduced below:

- **To determine the nature and extent of the contamination to assess risk and support development and evaluation of remedial alternatives** - To collect the data necessary to adequately characterize the nature and extent of contamination at the mill, consistent with the requirements of the National Oil and Hazardous Substance Pollution Contingency Plan (March 8, 1990) ("NCP") and the Consent Decree.
- **To evaluate potential risk** - To assess any current and potential risks to human health or the environment caused by the release or threatened release of hazardous substances, pollutants, or contaminants at or from the mill.
- **To develop and evaluate remedial alternatives** - To develop and evaluate alternatives, consistent with reasonably anticipated future land use(s) at the mill, for remedial action to prevent, mitigate, control, or eliminate risks posed by any release or threatened release of historic contaminants present at or from the mill.

The Addendum #1 objectives are defined as follows:

1. **Identify Source:** Identify, as much as possible, a likely cause of the oily sheen observed near the former transformer pad, with focus on the possible presence of non-aqueous phase liquid (NAPL).
2. **Determine relationships:** Determine if there is a relationship between the oily material near the transformer pad and the elevated PCB concentrations found at PM-SD-041, PEX-1 and PEX-2 (Figure 1).
3. **Assess NAPL:** Determine whether NAPL, if present, is entering the Kalamazoo River.
4. **Define Nature of Contamination:** Determine if the oily material present in soils and fill near the transformer pad and at locations PM-SD-041, PEX-1, and PEX-2 contain petroleum products and/or PCBs.
5. **Develop Next Steps:** Determine immediate actions needed and how the next phase of investigation should be integrated with other RI activities.

3.2 Investigation Approach

The approach to collecting the information to meet the Addendum #1 objectives will be phased. The initial phase will consist of a detailed review of the available historic and Phase I and II Environmental Site Assessment (ESA) results supplemented by a Geophysical survey between the Mill buildings and the Kalamazoo River. During this phase, the construction crew conducting the Emergency Response will be directed to observe the river near the Mill buildings for signs of any continuing release. In addition, the turbidity monitoring and weekly PCB sample collection will be continued at the in-stream sampling station established for monitoring the Mill Banks Emergency Response activities and, if needed, after the Emergency Response activities are completed.

Once the Phase 1 information is obtained, it will be used to define the Phase 2 sample collection locations and procedures that will be needed to meet the project objectives for Addendum #1. The investigation will be focused on using the following information from the Phase I Definition of Site Conditions to answer the follow principle study questions for this addendum.

- Is there evidence of any release that needs immediate action?
- Is/are there source(s) identified in the historical review that could be the primary source of the oily material identified near the former transformer pad?
- Is there a possible conduit identified from the historical review and/or the geophysical survey that could link the material near the transformer station to the elevated concentrations measured at PM-SD-041?
- Is/are there source(s) identified in the historical review that could cause the elevated concentrations measured along Zone D?
- Are there areas near possible sources or conduits that would allow sampling with less intrusive techniques?

The scope for the Phase 2 focused Data Collection will then be developed to address the following issues needed to meet the objectives of Addendum #1.

Objective 1. Identify Source

- Determine the PCB Aroclor content and diesel petroleum content of the observed oily material near the transformer.
- Confirm, if possible, through sampling or other methods if a specific source of the oily material remains on site.

Objective 2. Define Relationship

- Determine the PCB Aroclor content and diesel petroleum content of soil samples collected along possible conduits identified from the site conditions review.
- Determine the PCB Aroclor content and diesel petroleum content of soil samples collected along the bank parallel to the Kalamazoo River if no specific conduits are identified.

Objective 3. Assess Nonaqueous-Phase Liquids (NAPL)

- Develop an immediate action to address any, if present, NAPL release.

Objective 4. Define Nature of the Contamination

- Analyze soil samples for diesel petroleum content and PCB Aroclor to provide assessment of the type and linkages along the Mill building banks.

Objective 5. Determine Next Steps

- Define when and how to establish the extent of the oily material near the transformer as much as practicable.
- Define when and how to establish the extent of soil impacted by PCB Aroclors and oily material near PM-SD-041, PEX-1, and PEX-2 to determine the extent of these impacted materials.

Section 4

Scope and Rationale for Phase I of Addendum #1

4.1 Phase 1 Define Site Conditions to Focus Data Collection

The specific scope of work to define the site conditions will consist of three tasks. The first two tasks will gather additional information through focused historic review and a geophysical survey. The assembled information from these tasks will then be utilized to develop a potential bank area conceptual model that describe migration pathways relating to the measured presence of oily material and/or PCBs near the river. The data gaps in the available information as well as the potential pathways in the conceptual model will be used to define the sampling locations. The findings from the geophysical survey will be used to help select the sampling procedures and refine contingency plans that will be prepared to address additional oily soils/debris that may be encountered.

4.1.1 Task 1. Focused Historic Review

The historic review will be focused on reviewing information sources related to the following specific issues:

- the location or possible presence of lubricants or petroleum materials and PCBs that may have been used, released, or transported through the area between the Mill buildings and the river banks;
- the types of subsurface soils and fill that are located beneath the northern area of Mill buildings and between the buildings and the river; and
- historic features associated with the manufacturing facility that could provide migration pathways to the nearby river.

The sources that will be targeted for review include the reports listed in Section 2.1 with specific focus on the information listed in Table 1.

Table 1
Plainwell Mill Historical Document Review

Document	Location
Sanborne Maps, 1894 to 1950	2003 Plainwell Mill Phase 1
Soil Boring Logs	CDM Gray Seam Investigation, 2001 (PM8-1)
Geotechnical Soil Boring Logs - Wilkins and Wheaton, 1980	2003 Plainwell Mill Phase 1
Previous site investigation data along Mill building banks	Phase 2 reports Past USEPA and MDEQ reports Technical Memorandum 15

Document	Location
Outfall location and information	Phase 1 Environmental Site Assessment Reports Plant records, if available
Historic oil/petroleum releases/tank locations	Phase 1 Environmental Site Assessment Reports
Aerial photographs	BBL Description of Current Situation
Summary of mill building information and maps	City of Plainwell library, City web site, Phase I reports

The information will be summarized into a spread sheet and then reviewed for consistency among the various sources. The most relevant data will then be superimposed upon current site maps for further review in Task 3.

4.1.2 Task 2. Geophysical Survey

The planned geophysical survey will provide reconnaissance level information about variations in manmade fill material and natural materials, particularly in the upper 15 feet or so above the dense sand present on site. The specific objectives of the geophysical survey are to identify:

- the extent of buried riprap;
- the locations of possible piping and outfalls; and
- general subsurface features that could impact the conceptual model or the sampling program.

As with any geophysical survey, the effectiveness of the reconnaissance mapping will be subject to potential limitation imposed by site conditions. Specific conditions, including the above ground electrical lines, may affect the signal in certain areas. However, the recommended equipment has been selected to limit those interferences as much as possible.

The approach is to use two separate electromagnetic imaging tools to minimize interference from the power lines and provide better imaging for locating outfalls or other possible migration conduits. First, the electrical conductivity data will be collected at three depth levels using a GSSI Profiler. This frequency domain electromagnetic instrument utilizes multiple frequencies to view different depths. This instrument will provide indications of soil type based upon the electrical conductivity. Typically, coarse materials (sand, gravel, etc.) are the least conductive while silt, clay, ash, cinders, wood paper, and other fine grained moist materials are conductive to the highest degree of nonmetallic materials. Data will be gathered in transects parallel to the river and the position will be controlled using global positioning (GPS). The transects will be spaced about 1 meter apart. Transects will extend from the location east of the decommissioned transformer pad to the end of the main Mill buildings (Figure 5).

The second tool is a Geonics EM-61, a time-domain metal detector that can be used in areas where above-ground metallic objects (like the power lines) are present without significant adverse effect on the data. The EM-61 will be directed over the same transect pattern as the GSSI profiler. These combined geophysical tools are expected to meet the project objectives without

significant interference effects and the in-field activities are anticipated to require 3 days in the field, with 1 day of mobilization and transect layout, 1 day of data collection, and 1 day for demobilization. Weather delays are not factored into this field schedule.

The results of the geophysical survey will be recorded using GPS and supplemented with photographs. The results will be presented on maps that show the readings and a separate map of the data interpretation. The interpretation map will be overlain with the results of the historical review completed as Task 1. The methods, field activities, and findings for this geophysical investigation will be summarized in the Phase 2 Work Plan and then presented in detail as part of the Plainwell Mill Remedial Investigation Report.

4.1.3 Task 3. Development of Focused Work Plan for Phase 2

The information obtained during Tasks 1 and 2 will be integrated on maps. These maps and the other historical information will be evaluated to allow development of a local area conceptual model that describes a possible mechanism for the presence of oily materials and PCBs that were discovered in Area D during the Emergency Action. The level of certainty/uncertainty with this model will be considered and specific data gaps identified. Then the objectives of Addendum #1 as described in Section 3.1 of this Work Plan Addendum will be reviewed and refined if necessary. Some of these data gaps may not need to be considered when developing the Phase 2 scope of work to meet the refined objectives of Addendum #1 while other data needs will be clearly necessary.

The final deliverable for this phase of work will be a focused Phase 2 Work Plan Amendment that identifies sampling locations, sampling methods, the proposed analytical program to assess petroleum and PCB issues, and an updated schedule for implementation. As needed, specific addenda to the multi-area QAPP and FSP will be included with the focused Phase 2 Work Plan. A detailed summary of the historical review and the data interpretation will be included in the Plainwell Mill RI Report.

4.2 Anticipated Schedule

The following schedule is expected for the work described in Phase 1 of Addendum #1, PCB Investigation Activities Near Mill Building Banks:

- Work Plan Preparation – Submittal of the draft work plan on or before March 5, 2008, and finalization based upon review comments.
- Task 1 - Historical Review. Work described in Task 1 of this addendum will be completed as soon as the various information sources can be obtained and/or reviewed. The initial estimate is 3 weeks after approval of the Work Plan.
- Task 2 - Geophysical Survey. This work can begin concurrently with Task 1 but the actual schedule will vary since the activities are weather dependent. The geophysical tools are adversely affected by loose snow and will require 3 consecutive days of appropriate weather for proper data collection.

- Task 3 - Preparation of a Phase 2 Work Plan amendment: A draft Phase 2 Work Plan Amendment will be submitted for agency review 6 weeks after receipt of the geophysical survey results.

The actual schedule for Phase 1 of the Addendum #1 work effort will be updated in the monthly progress reports as more information is available.

FIGURES

Legend

Pre-Excavation Samples

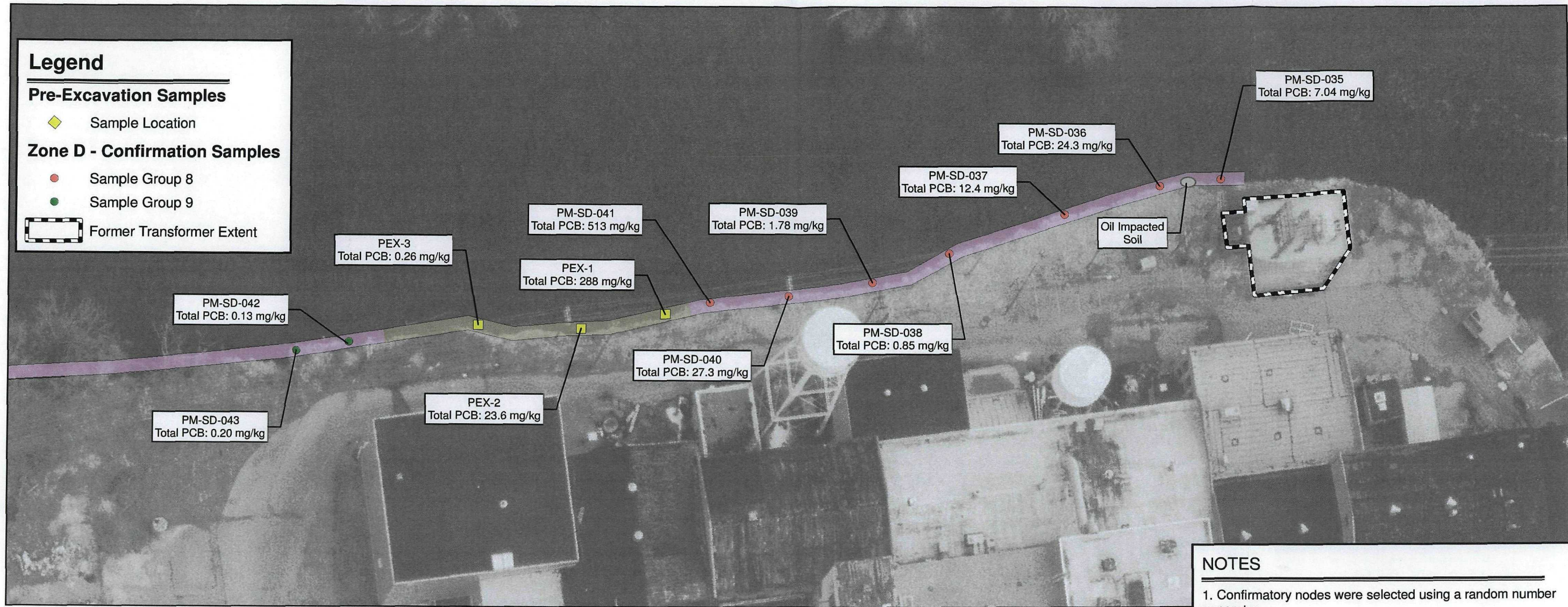
◆ Sample Location

Zone D - Confirmation Samples

● Sample Group 8

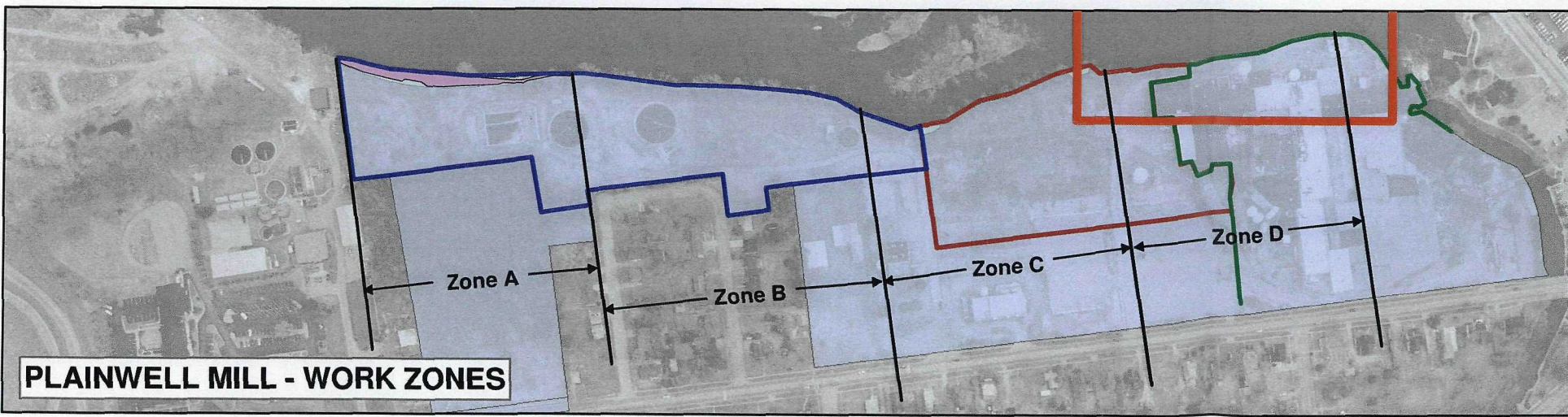
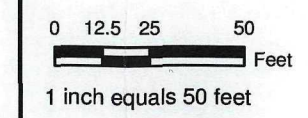
● Sample Group 9


▭ Former Transformer Extent




NOTES

1. Confirmatory nodes were selected using a random number generator.
2. All locations are approximate.
3. "PEX" denotes samples collected prior to excavation

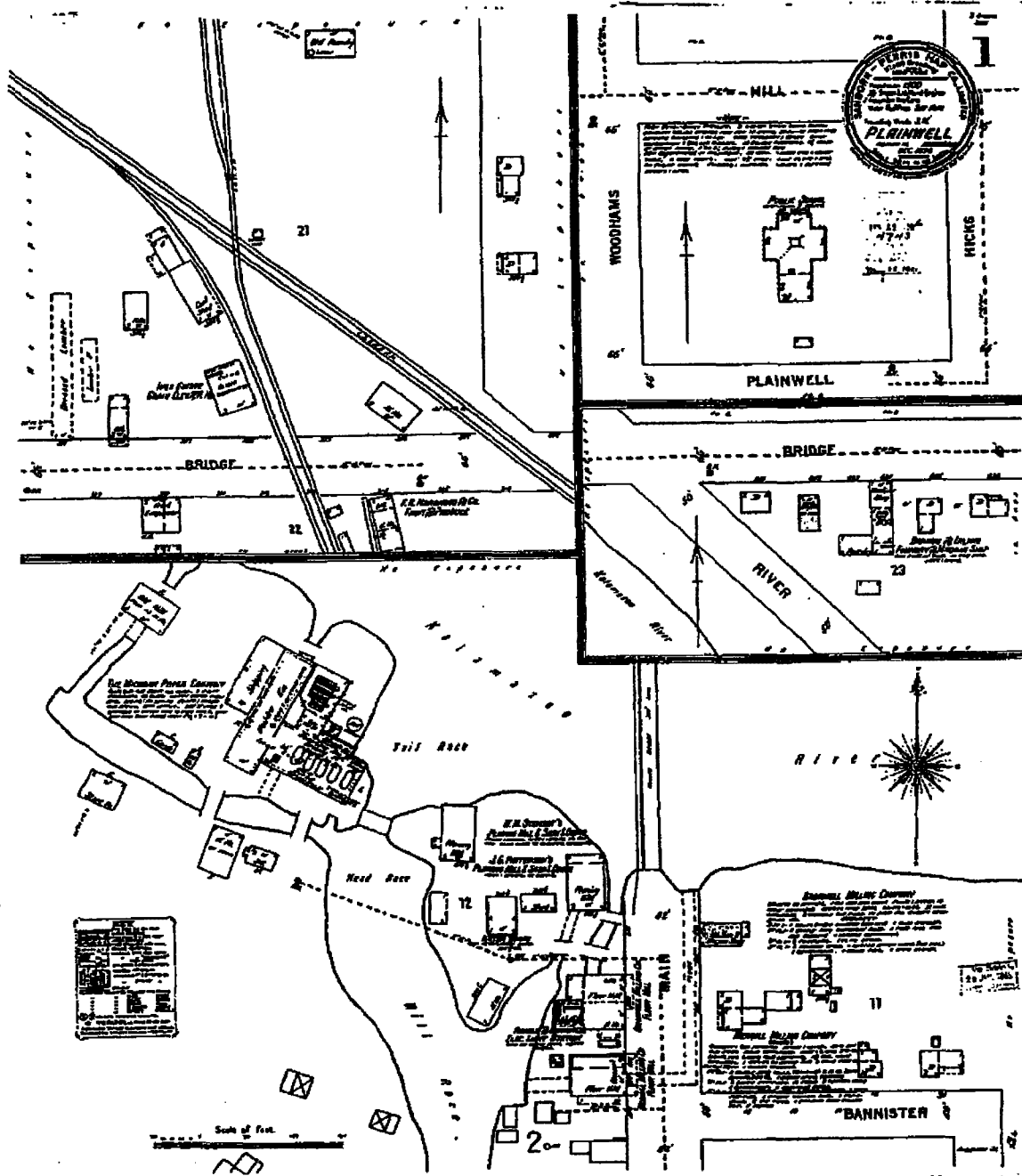


PROJECT: WEYERHAEUSER COMPANY KALAMAZOO RIVER SUPERFUND SITE PLAINWELL MILL WORKPLAN ADDENDUM		
SHEET TITLE: ZONE D SAMPLING LOCATIONS PLAINWELL MILL BANKS		
DRAWN BY:	SCALE: AS NOTED	PROJ. NO.: 00-05130.04
CHECKED BY:	DATE PRINTED: 2/26/08	FILE NO.: 51300404
APPROVED BY:	DATE: FEBRUARY 2008	FIGURE 1
		
<small>150 N. Patrick Blvd., Suite 180 Brookfield, WI 53005-5854 Phone: 262-879-1212 Fax: 262-879-1220</small>		

Photographic Log

Client Name: Weyerhaeuser		Site Location: Plainwell Mill	Project No.: 00-05130.05
No. Figure 2	Date 1973	 <p>VIEW OF PAPER MILL - PLAINWELL, MICH. 12-73</p>	
Description Extensive rip rap or erosion protection along the banks of the Plainwell Mill (Zone D).			

Source: <http://www.plainwell.org/development/postcardsweb.pdf>



The Sanborn Library, LLC

This Sanborn Map is a certified copy of the original map as published by The Sanborn Library, LLC. Information on this Sanborn Map is derived from Sanborn field surveys conducted at:

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PROJECT: WEYERHAEUSER COMPANY
KALAMAZOO RIVER SUPERFUND SITE
PLAINWELL MILL WORKPLAN ADDENDUM

SHEET TITLE: PLAINWELL MILL SANBORN MAPS
HISTORICAL MILL RACE CHANNEL
BENEATH CURRENT MILL STRUCTURES


DATE: MARCH 2008

DRAWN BY: NCW

FIGURE 3

RMT

Photographic Log

Client Name: Weyerhaeuser		Site Location: Plainwell Mill	Project No.: 00-05130.05
No. Figure 4	Date 2/5/08		
Description Residuals excavation near the former transformer station showing the location of buried rip rap/rocks.			

Legend

Pre-Excavation Samples

◆ Sample Location

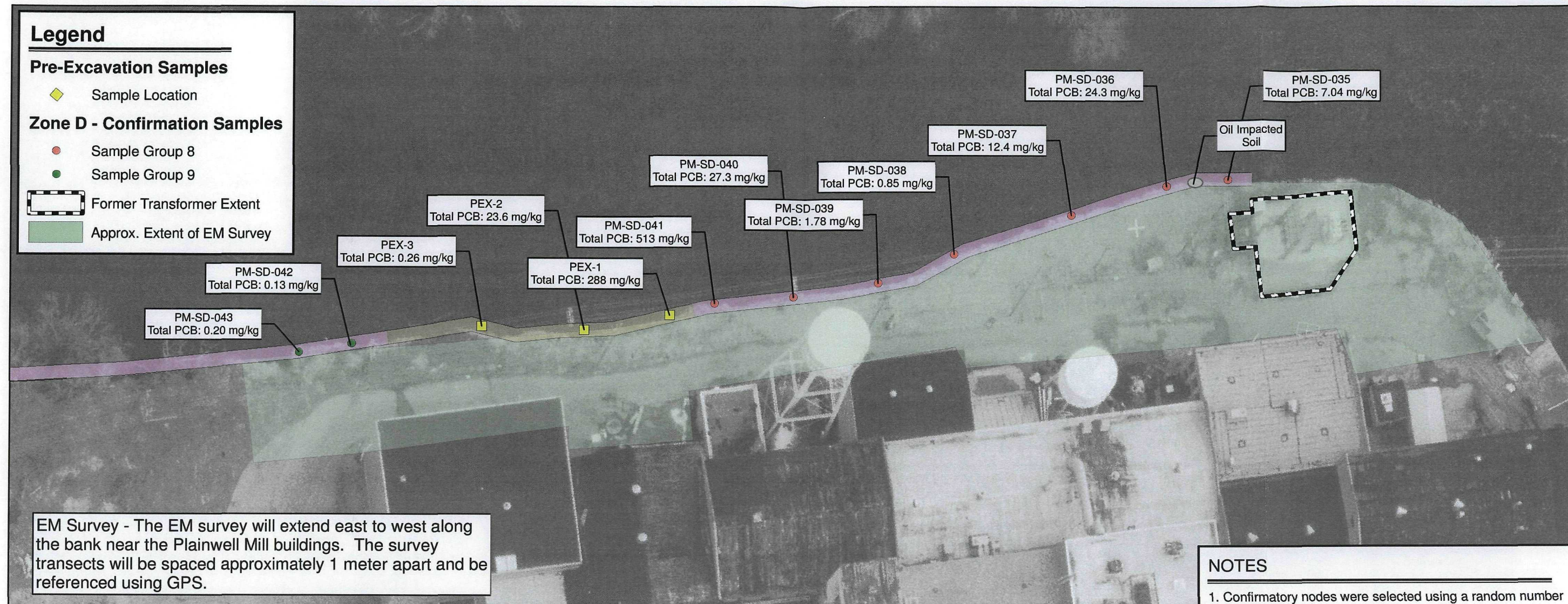
Zone D - Confirmation Samples

● Sample Group 8

● Sample Group 9

▭ Former Transformer Extent

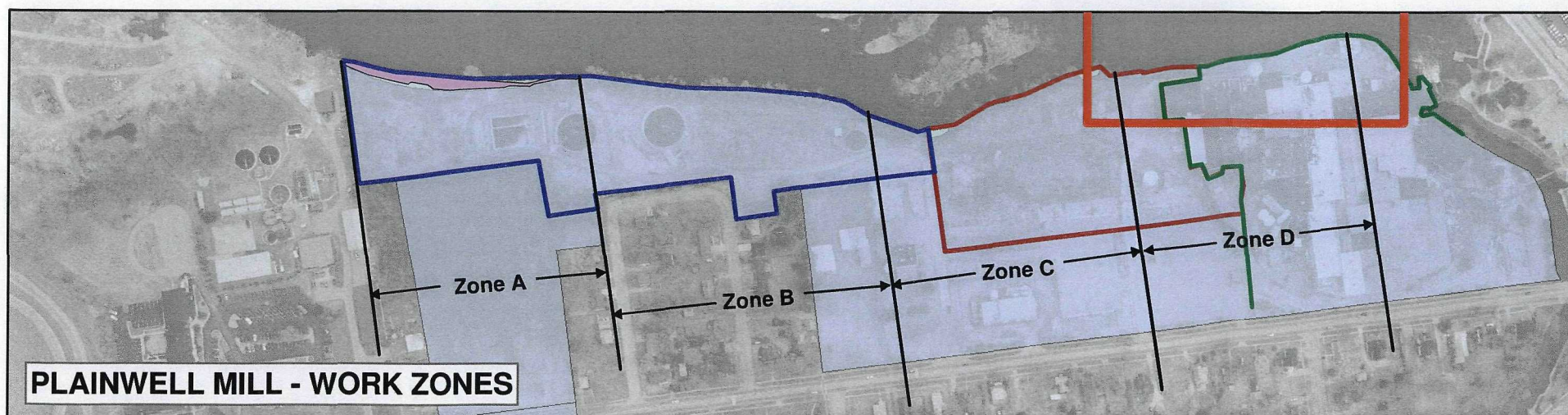
▭ Approx. Extent of EM Survey



NOTES

1. Confirmatory nodes were selected using a random number generator.
2. All locations are approximate.
3. "PEX" denotes samples collected prior to excavation

0 12.5 25 50
Feet
1 inch equals 50 feet



PROJECT: WEYERHAEUSER COMPANY KALAMAZOO RIVER SUPERFUND SITE PLAINWELL MILL WORKPLAN ADDENDUM		
SHEET TITLE: ZONE D SAMPLING LOCATIONS PLAINWELL MILL BANKS & APPROXIMATE EXTENT OF EM SURVEY		
DRAWN BY:	SCALE: AS NOTED	PROJ. NO.: 00-05130.04
CHECKED BY:	DATE PRINTED: 2/26/08	FILE NO.: 51300404
APPROVED BY:	FIGURE 5	
DATE: FEBRUARY 2008		



150 N. Patrick Blvd., Suite 100
Brookfield, WI 53045-5854
Phone: 262-879-1212
Fax: 262-879-1220